

## Distance education in higher education

*Advances in technology and widespread access to this technology allow many educational institutions to offer courses to students who would otherwise have difficulty participating in higher education (students who work, students who care for families, students who live in remote areas) without being present on campus. This type of education, commonly referred to as "distance education," is an increasingly important component of higher education. Examining the availability and use of distance education can help educators assess the need for these services.*

- In 1995, one-third of higher education institutions offered distance education courses; another 25 percent indicated plans to begin courses within 3 years; and 42 percent did not offer and did not plan to offer these courses in the next 3 years. Higher education institutions in the Northeast were less likely than institutions in other regions to offer distance education courses in 1995, and institutions with larger enrollments were more likely to offer distance education courses than schools with smaller enrollments.
- Public institutions were more likely to offer distance education courses than private institutions, and more students enrolled in these courses in 1995 were enrolled in public 2-year institutions than in other types of institutions (see supplemental table 31-1). Public 4-year institutions were, however, more likely than public 2-year institutions to offer and award degrees and certificates that could be earned by taking only distance education courses (see supplemental table 31-2).
- In 1995, two-way interactive video and one-way prerecorded video were the most frequently used methods of delivering distance education courses (57 and 52 percent, respectively). Furthermore, of higher education institutions who currently were offering or planning to offer distance education, about 80 percent were planning to start or increase the use of two-way interactive video, and about half were planning to start or increase the use of one-way prerecorded video in the next 3 years (see supplemental table 31-3).

### Percentage distribution of higher education institutions according to status of offering distance education, by selected institutional characteristics: 1995

Selected institutional characteristics	Currently offering distance education courses	Not currently offering distance education courses	
		Planning to offer distance education courses in the next 3 years	Not planning to offer distance education courses in the next 3 years
<b>All institutions</b>	<b>33</b>	<b>25</b>	<b>42</b>
Institution type			
Private 2-year	2	14	84
Private 4-year	12	27	61
Public 2-year	58	28	14
Public 4-year	62	23	14
Region			
Northeast	20	27	53
Southeast	31	28	41
Central	39	24	37
West	40	23	37
Size of institution (enrollment)			
Less than 3,000	16	27	56
3,000–9,999	61	24	15
10,000 or more	76	14	10

NOTE: Details may not add to 100 due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Postsecondary Education Quick Information System, *Distance Education in Higher Education Institutions*, 1997.

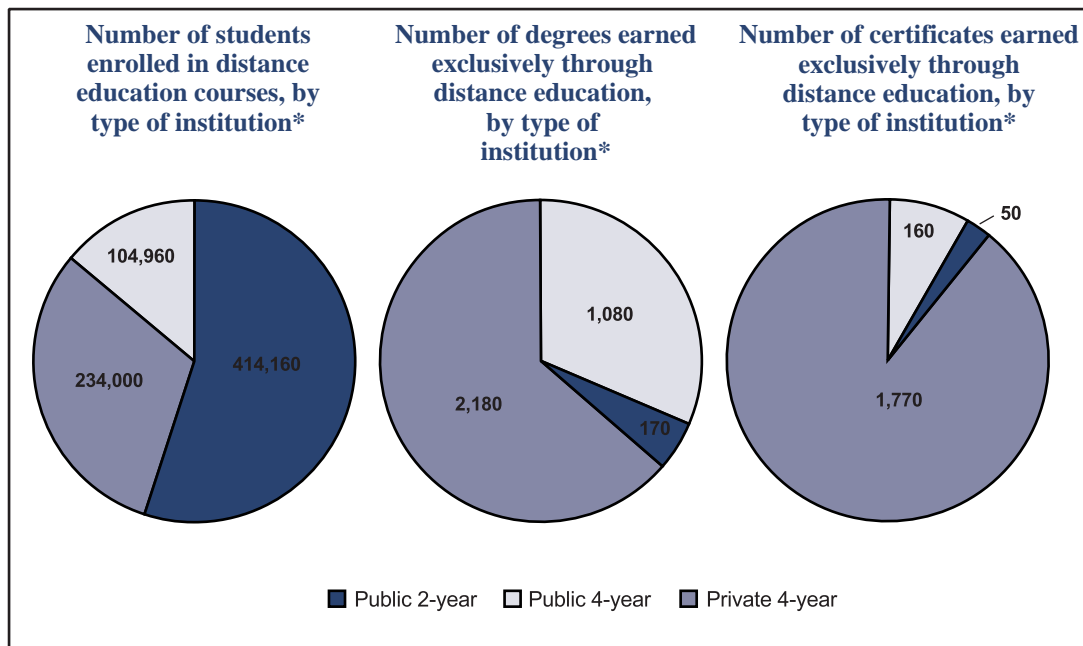
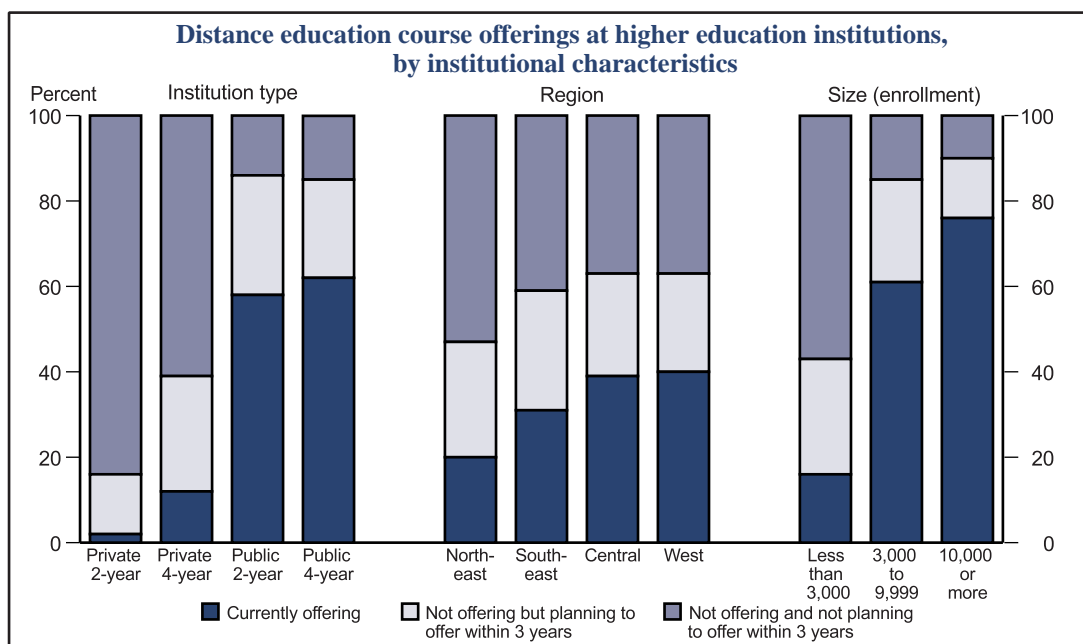
**Table S31**      **Standard errors for the text table in *Indicator 31***

Selected institutional characteristics	Currently offering distance education courses	Not currently offering distance education courses	
		Planning to offer distance education courses in the next 3 years	Not planning to offer distance education courses in the next 3 years
<b>All institutions</b>	<b>1.0</b>	<b>1.6</b>	<b>1.6</b>
Institution type			
Private 2-year	1.0	3.2	3.3
Private 4-year	1.2	2.6	2.9
Public 2-year	1.9	2.1	1.7
Public 4-year	2.0	2.2	2.2
Region			
Northeast	1.8	2.6	3.0
Southeast	2.2	3.6	3.2
Central	2.3	3.2	3.6
West	3.0	3.0	3.9
Size of institution (enrollment)			
Less than 3,000	1.2	2.3	2.2
3,000 to 9,999	2.0	1.8	1.2
10,000 or more*	0.0	0.0	0.0

\* The estimated standard error is zero for the institutions with 10,000 or more students because all institutions of this size were surveyed.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Postsecondary Education Quick Information System, *Distance Education in Higher Education Institutions*, 1997.

## Distance education in higher education: 1995



\* Data for private 2-year institutions are not included because too few of them offered distance education in fall 1995 for a reliable estimate.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Postsecondary Education Quick Information System, *Distance Education in Higher Education Institutions, 1997*.

**Table 31-1** Total number and percentage distribution of students formally enrolled in distance education courses, by selected institutional characteristics: 1995

Selected institutional characteristics	Number of students	Percentage distribution
<b>All institutions</b>	<b>753,640</b>	<b>100</b>
Institution type*		
Private 4-year	104,960	14
Public 2-year	414,160	55
Public 4-year	234,020	31
Region		
Northeast	72,960	10
Southeast	200,230	27
Central	205,030	27
West	275,420	37
Enrollment		
Less than 3,000	116,320	15
3,000 to 9,999	232,750	31
10,000 or more	404,570	54

\* Data for private 2-year institutions are not included because too few of them offered distance education in fall 1995 to make reliable estimates. Data for private 2-year institutions are included in the totals and in analyses by other institutional characteristics.

NOTE: The numbers of degrees and certificates have been rounded to the nearest 10. Details may not add to total due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Postsecondary Education Quick Information System, *Distance Education in Higher Education Institutions*, 1997.

**Table S31-1** Standard errors for table 31-1

Selected institutional characteristics	Number of students	Percentage distribution
<b>All institutions</b>	<b>30,045.7</b>	—
Institution type		
Private 4-year	13,079.0	1.6
Public 2-year	23,587.1	2.0
Public 4-year	13,559.1	1.8
Region		
Northeast	6,624.8	0.9
Southeast	11,420.5	1.6
Central	25,212.8	2.6
West	11,706.7	1.6
Size of institution (enrollment)		
Less than 3,000	21,339.5	2.5
3,000 to 9,999	22,337.5	2.3
10,000 or more	* 0.0	2.2

— Not applicable.

The estimated standard error is zero for the institutions with 10,000 or more students because all institutions of this size were surveyed.

NOTE: Standard errors are computed on rounded numbers.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Postsecondary Education Quick Information System, *Distance Education in Higher Education Institutions*, 1997.

**Table 31-2 Percentage of higher education institutions offering degrees or certificates to students taking only distance education courses, total number of degrees or certificates offered, by selected institutional characteristics: 1995**

Selected institutional characteristics	Percentage of institutions offering		Total number of degrees or certificates offered		Total number of recipients	
	Degrees	Certificates	Degrees	Certificates	Degrees	Certificates
<b>All institutions</b>	<b>23</b>	<b>7</b>	<b>690</b>	<b>170</b>	<b>3,430</b>	<b>1,970</b>
Institution type*						
Private 4-year	29	14	160	60	1,080	160
Public 2-year	12	3	130	20	170	50
Public 4-year	35	9	390	90	2,180	1,770
Region						
Northeast	14	5	50	30	90	10
Southeast	24	6	180	30	1,080	240
Central	26	7	270	30	560	1,260
West	23	8	200	80	1,700	460
Enrollment						
Less than 3,000	17	5	160	30	1,080	100
3,000 to 9,999	19	7	210	50	710	160
10,000 or more	34	10	320	90	1,640	1,720

\* Data for private 2-year institutions are not included because too few of them offered distance education in fall 1995 to make reliable estimates. Data for private 2-year institutions are included in the totals and in analyses by other institutional characteristics.

NOTE: The numbers of degrees and certificates have been rounded to the nearest 10. Details may not add to total due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Postsecondary Education Quick Information System, *Distance Education in Higher Education Institutions*, 1997.

Table S31-2 Standard errors for table 31-2

Selected institutional characteristics	Percentage of institutions offering		Total number of degrees or certificates offered		Total number of recipients	
	Degrees	Certificates	Degrees	Certificates	Degrees	Certificates
<b>All institutions</b>	<b>1.7</b>	<b>1.0</b>	<b>70.3</b>	<b>17.8</b>	<b>478.7</b>	<b>120.3</b>
Institution type						
Private 4-year	6.3	5.9	48.7	11.4	232.2	85.4
Public 2-year	2.2	0.9	37.9	5.0	68.0	23.4
Public 4-year	2.2	1.1	21.0	12.1	416.2	83.0
Region						
Northeast	2.1	1.4	6.1	6.0	1.2	( <sup>1</sup> )
Southeast	2.7	1.5	15.3	4.6	190.1	87.4
Central	4.5	2.8	67.1	11.6	164.9	7.7
West	2.0	1.5	20.8	11.6	420.8	82.7
Size of institution (enrollment)						
Less than 3,000	4.8	2.9	63.9	15.3	436.1	82.7
3,000 to 9,999	1.9	1.0	30.0	7.2	197.6	87.3
10,000 or more <sup>2</sup>	0.0	0.0	0.0	0.0	0.0	0.0

<sup>1</sup>Standard error less than 0.05 rounded to 0.0.

<sup>2</sup>The estimated standard error is zero for the institutions with 10,000 or more students because all institutions of this size were surveyed.

NOTE: Standard errors are computed on rounded numbers.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Postsecondary Education Quick Information System, *Distance Education in Higher Education Institutions*, 1997.

**Table 31-3**      **Percentage of higher education institutions currently offering or planning to offer distance education courses, by types of delivery technologies: 1995**

Delivery technology	Currently use the technology <sup>1</sup>	Percentage planning to start or increase use of technology	
		Institutions currently offering distance education courses <sup>1</sup>	Institutions that plan to start offering distance education courses <sup>2</sup>
Two-way interactive video	57	81	77
Two-way audio, one-way video	24	33	38
One-way live video	9	27	31
One-way prerecorded video	52	52	44
Audiographics	3	9	7
Two-way audio (e.g., audio/phone conferencing)	11	18	21
One-way audio (e.g., radio, audiotapes)	10	11	11
Two-way online (computer-based) interactions during instruction	14	75	64
Other computer-based technology (e.g., Internet)	22	84	74

<sup>1</sup> Based on institutions that currently offer distance education courses.

<sup>2</sup> Based on institutions that do not currently offer but plan to offer distance education courses in the next 3 years.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Postsecondary Education Quick Information System, *Distance Education in Higher Education Institutions*, 1997.



**Table S31-3 Standard errors for table 31-3**

		Percentage planning to start or increase use of technology	
		Institutions currently offering distance edu- cation courses	Institutions that plan to start offering distance edu- cation courses
Delivery technology	Currently use the technology		
Two-way interactive video	1.5	1.6	2.5
Two-way audio, one-way video	1.3	1.6	2.8
One-way live video	0.9	1.7	3.6
One-way prerecorded video	1.6	1.9	2.4
Audiographics	0.4	0.9	1.5
Two-way audio (e.g., audio/phone conferencing)	1.3	1.5	2.4
One-way audio (e.g., radio, audiotapes)	1.7	1.3	2.6
Two-way online (computer-based) interactions during instruction	1.3	1.8	3.0
Other computer-based technology (e.g., Internet)	2.0	1.6	2.5

SOURCE: U.S. Department of Education, National Center for Education Statistics, Postsecondary Education Quick Information System, *Distance Education in Higher Education Institutions*, 1997.